

Att'y Docket: 1802.03

Claim Amendment under 37 CFR 1.121(c)

Claim 1. (Cancelled)

5 Claims 2. - 3. (Cancelled)

Claims 4. - 19. (Cancelled)

10 Claim 20. (Currently amended) A zoom system for forming
an image with varying magnification comprising one
or more variable focal length lenses, wherein the
variable focal length lens is made of a micromirror
array lens, wherein the micromirror array lens
comprises a plurality of micromirrors, wherein each
15 micromirror is controlled to change the focal length
of the micromirror array lens, wherein the
micromirror array lens further comprises a plurality
of mechanical structures upholding the micromirrors
and actuating components actuating the micromirrors,
20 [[The zoom system of claim 17]] wherein the
micromirror array lens is an adaptive optical
component, wherein the micromirror array lens
corrects aberrations.

OKAY TO ENTER
01/09/2006

Att'y Docket: 1802.03

Claim 21. (Currently amended) A zoom system for forming
an image with varying magnification comprising one
or more variable focal length lenses, wherein the
variable focal length lens is made of a micromirror
5 array lens, wherein the micromirror array lens
comprises a plurality of micromirrors, wherein each
micromirror is controlled to change the focal length
of the micromirror array lens, wherein the
micromirror array lens further comprises a plurality
10 of mechanical structures upholding the micromirrors
and actuating components actuating the micromirrors,
[[The zoom system of claim 1,]] wherein the
micromirror array lens is an adaptive optical
component, wherein the micromirror array lens
15 corrects the defects of the zoom system that cause
the image to deviate from the rules of paraxial
imagery.

Claim 22. (Cancelled)

20
Claim 23. (Currently amended) A zoom system for forming
an image with varying magnification comprising one
or more variable focal length lenses, wherein the
variable focal length lens is made of a micromirror

Att'y Docket: 1802.03

array lens, wherein the micromirror array lens
comprises a plurality of micromirrors, wherein each
micromirror is controlled to change the focal length
of the micromirror array lens, wherein the
5 micromirror array lens further comprises a plurality
of mechanical structures upholding the micromirrors
and actuating components actuating the micromirrors,
[[The zoom system of claim 17]] wherein the
micromirror array lens is controlled to satisfy the
10 same phase condition for each wavelength of Red,
Green, and Blue (RGB), respectively, to get a color
image.

Claim 24. (Original) The zoom system of claim 23,
15 further comprising a plurality of bandpass filters.

Claim 25. (Original) The zoom system of claim 23,
further comprising a photoelectric sensor, wherein
the photoelectric sensor comprises Red, Green, and
20 Blue (RGB) sensors, wherein a color image is
obtained by treatment of electrical signals from the
Red, Green, and Blue (RGB) sensors.

Claim 26. (Original) The zoom system of claim 25,
25 wherein the treatment of electrical signals from the

Att'y Docket: 1802.03

Red, Green and Blue (RGB) sensors is synchronized
and/or matched with the control of the micromirror
array lens to satisfy the same phase condition for
each wavelength of Red, Green and Blue (RGB),
5 respectively.

Claims 27. - 32. (Cancelled)

Claim 33. (Currently Amended) A zoom system for forming
10 an image with varying magnification comprising one
or more variable focal length lenses, wherein the
variable focal length lens is made of a micromirror
array lens, wherein the micromirror array lens
comprises a plurality of micromirrors, wherein each
15 micromirror is controlled to change the focal length
of the micromirror array lens, wherein the
micromirror array lens further comprises a plurality
of mechanical structures upholding the micromirrors
and actuating components actuating the micromirrors,
20 wherein the variable focal length lenses comprise a
first variable focal length lens and a second
variable focal length lens, wherein the focal length
of the first variable focal length lens and the
focal length of the second variable focal length
25 lens are changed to form the image in-focus at a

Att'y Docket: 1802.03

given magnification,

[[~~The zoom system of claim 27,~~]] further comprising
a focus lens group, an elector lens group and a
relay lens group, wherein the first variable focal
5 length lens forms a variator lens group, and the
second variable focal length lens forms a
compensator lens group.